TELLIMYA TEHUELCHA, NEW SPECIES: FIRST RECORD OF TELLIMYA BROWN, 1827, IN SOUTH AMERICA (BIVALVIA: LASAEIDAE), WITH NOTES ON LIFE HISTORY AND REPRODUCTION

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INTRODUCTION

Galeommatoids are small bivalves usually living as epibionts on other invertebrates. Among them, a number of genera, such as Waldo Nicol, 1966, Scioberetia F. Bernard, 1895, Montacuta Turton, 1822, Tellimya Brown, 1827, Brachiomya Jespersen, Lützen & Nielsen, 2004, and Montacutella Jespersen, Lützen & Nielsen, 2004, are associated with sea urchins. Only Scioberetia and Waldo were reported from the southern tip of South America (F. Bernard, 1895a–c; Zelaya & Ituarte, 2002).

Tellimya was proposed to include Mya suborbicularis Montagu, 1803, Ligula substriata Montagu, 1808, Mya ferruginosa Montagu, 1808, Tellimya lactea Brown, 1827, T. tenuis Brown, 1827, T. elliptica Brown, 1827 (based on Mya ferruginosa Montagu, 1808, and an objective synonym thereof), T. glabrum Brown, 1827, and T. ovata Brown, 1827. Subsequently, Gray (1847) designated Mya ferruginosa as its type species. Pérès (1937), Pophan (1940), Deroux (1961) and Oldfield (1961) provided information on the gross anatomy and functional morphology of the type species, and Kamenev (2008) clarified the details of the hinge morphology of the genus. Tellimya has sometimes been regarded as a subgenus of Montacuta (e.g., Pelseneer, 1925; Ponder, 1968), but currently regarded as a full genus (e.g., Chavan, 1969; Aartsen, 1997; Marshall, 2002; Kamenev, 2008).

In the present paper, a new species of Tellimya from the Magellan Region, which constitutes the first record of the genus in South America, is described.

MATERIALS AND METHODS

The specimens described here were obtained at irregular intervals between March 2009 and May 2010 from the intertidal zone at Puerto Deseado, Santa Cruz Province, Argentina (Fig. 1) attached to irregular echinoids of the genus Abatus. Echinoids were hand collected during maximum low tides and transported to the laboratory for inspection under stereoscopic microscope. The number of bivalves and their position on the echinoid test were recorded. The maximum diameter of echinoids was measured. Length (L: maximum anteroposterior distance), height (H: maximum dorsoventral distance perpendicular to L) and width (W: maximum distance across valves) of bivalves were measured. Mean values and standard deviation (SD) for the H/L and W/L ratios were calculated. Specimens for anatomy were fixed and decalcified in a 10% formalin solution with 5% acetic acid, and dissected under a stereoscopic microscope. Specimens for histology were fixed in Bouin’s solution, dehydrated, embedded in Historesin (Leica®) and sectioned (3.5 μm thick). Sections were stained with haematoxylin and eosin. Shell morphology was studied and illustrated with scanning electron microscopy.

Voucher specimens were deposited in the collections of Invertebrate Zoology at Museo Argentino de Ciencias Naturales (MACN) and Museo de La Plata (MLP).

SYSTEMATICS

Tellimya tehuelcha, n. sp.
Figs. 2–33

Type Locality: 47°45’S, 65°52’W, Puerto Deseado, Santa Cruz Province, Argentina.

Type Material: Holotype (MLP 13396) and 20 paratypes (10 paratypes, MACN-In 39321; 10 paratypes MLP 13397).

Additional Material: Histological sections of seven specimens (MACN-In 39320).